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An Inaugural Dissertation On Acute-Hepatitis.

by

Isaac L. Coffman.

of Pennsylvania.

In obedience to the laws of this University, which oblige the candidate to write a dissertation on some medical subject, preparatory to obtaining the degree of Doctor of Medicine, I beg leave to offer with much diffidence, a few observations on the history, nature, and treatment of Acute Hepatitis. On such an occasion, nothing new or highly finished, can be expected from one, who professes himself a mere Tyro in science. A plain and simple statement of what I have collected in a limited course of reading, and the usual attendance on medical lectures, is all that must be looked for, as yet little has been acquired by me from observation or experience. Distrustful, therefore, of myself, I rely much for success in my present attempt, on the indulgence and liberality of the honourable faculty, before whom it is my good fortune to appear.——

Isaac. Z. Coffman.

History of Hepatitis.

Hepatitis, or inflammation of the liver, is of two kinds, acute and chronic. The former is violent in its nature and rapid in its progress.— The latter more moderate, and less rapid, as their several names designate. Hepatitis is a disease of southern, rather than of northern climates; and of low and flat, rather than of a high and hilly country. It may be confidently looked for in all places, where bilious fever is a prevailing malady; hence it is frequently found in the miasmatic sections of the southern states; particularly the two Carolina's and Georgia, and in the whole range of the West-India islands. It is said to be still more prevalent in the British provinces in India, and in some of the islands of the Indian ocean, where, it would appear, it is a real endemic, almost as much so, as the intermittent is, in certain sections of the United States.

It is an evil justly, and much to be dreaded, throughout the tropical regions of the whole world, especially if the country be marshy and low.- Hepatitis is chiefly confined to adults. Children, and those under the age of puberty, being less subject to it. It attacks females as well as males, and is particularly incidental to intemperate persons, and those who lead sed-entary lives. A drunkard, it is said, in the Torrid Zone rarely escapes Hepatitis. —

Symptoms.

Acute - Hepatitis is frequently preceded by an affection of the stomach. This however for the most part is so inconsiderable, as not to create alarm, nor even to excite much uneasiness. Its formal attack is ushered in by pain, and tension, in the right hypochondrium, some-times sharp, at other times dull, extending to

the right shoulder, and at times also, to the left.- This is more particularly the case in chronic-hepatitis.- The clavicle, and point of the shoulder suffer most.- Then succeed chills, fever, and increase of the pain, and most frequently, if not always, some degree of cough, which is, for the most part, dry.- The bowels are generally constipated, at times very obstinately so. Occasionally, however, the reverse is true; and the complaint is attended with Diarrhoea, and even symptoms of Dysentery and Hæmorrhoidal affections, sometimes accompany this malady. But this is perhaps more frequently true of Chronic-Hepatitis.

There is usually an inability, or great inconvenience experienced from lying on the left side. This is sometimes true of the right side also, and the patient is compelled to lie on his back.—

In these cases, a weight, or drawing, is felt under an attempt to lie on the left side. — Pressure on the right hypochondriac region excites pain, and by a careful examination, an enlargement in that part becomes perceptible. The complaint is sometimes marked by a superabundant, at other times by a diminished secretion of bile.

The tongue is covered by a yellowish fur, as it commonly is when the abdominal viscera are disordered, and the urine is scanty and high coloured. — The pulse is full hard and frequent, from ninety to one hundred in a minute, and sometimes intermitting. When the disease has continued for some days, the skin and eyes become tinged of a deep yellow, particularly when the inflammation is produced by calculi in the parenchyma of the liver. —

If the patient sit up, but more especially, if he attempt to stand erect, he feels a distressing weight, or dragging, downwards, in the region of the liver. —

Terminations.

Acute Hepatitis may terminate in resolution, suppuration, gangrene, scirrhus, hemorrhagy, or effusion. Gangrene of the liver however is a rare occurrence, I have seldom read, or heard of it; certainly I never have witnessed such a case. — After suppuration, the matter formed most usually finds its way, to the surface of the body, and is discharged. — At other times however, the liver contracts adhesions to the diaphragm, and the matter is discharged by ulceration, into the cavity of the thorax, or into the substance of the lungs, and is discharged from the bronchia by coughing. It may also be discharged into the duodenum, by

the biliary ducts. In some rare instances the matter is discharged into the cavity of the abdomen; in this case the disease terminates fatally, in consequence of the peritoneal inflammation thus excited.

Causes.

Acute Hepatitis may result from any thing producing strong irritation in the liver, either directly, or through the medium of sympathy. In the latter mode, the disease appears to be most frequently produced. Of the causes producing Acute Hepatitis directly, may be mentioned contusions on the hepatic region from blows, falls; inordinate pressure, such as that arising from the too tight lacing of ladies stays or corsetts; and wounds of the liver from cutting, or piercing instruments, or by balls from fire arms.

The causes that may

excite inflammation of the liver by sympathy, appear to be more numerous. They make their first impression on the stomach, or skin. — Of the latter kind are humidity, and sudden changes in the weather from a high, to a low temperature. Wearing wet clothes and sleeping between damp sheets, have oftentimes been productive of this complaint. So also has the taking of cold, by whatever means it may have been effected.

Of the causes that act immediately on the stomach, marsh miasmata, strong drink, and high seasoned food excessively and habitually indulged in, occupy the first place. — Any-thing taken into the stomach, which this organ cannot digest, may, by sympathy, produce hepatitis. Under this head come mineral poisons of every description, which when swallowed, if they

do not kill, very frequently induce inflamma-tion of the liver. Oxide of arsenic, and sulph-ate of copper, might here be particularly named. Opium when used in inordinate quantities, gives origin to the same disease. Hence, professed opium eaters are said frequently to labour under hepatic affections. The bite of venomous serp-ents, if it do not destroy life in a short time, oftentimes excites, as we are told, inflammation of the liver. We are better prepared to admit the truth of this, from knowing, that a vomit-ing of bile, which gives evidence of an undue irritation of the liver, is one of the symptoms of the acute disease, arising from the bite of the rattle-snake, and other poisonous serpents.— A yellowness of the skin, is also a concomita-nt of this affection. —

I know, the opin-ion, that Hepatitis arises in any case from

sympathy with the stomach, is held, by many, to be visionary and unfounded — but I, notwithstanding, believe it to be as well established, as any other position in pathology. — Some of the causes producing ~~[illegible]~~ what is denominated Idiopathic Hepatitis, act in their primary and immediate action, reach the liver. Ardent spirits, marsh miasmata, and injurious food make their way into the stomach, but cannot in their formal state, go any further. — In this state, therefore, they cannot enter the liver, nor is it possible for them to act primarily, where they do not formally exist; and as they do not exist in the liver, they cannot exert their immediate influence on that organ. Yet they produce Hepatitis. They must do it, therefore, by acting on the only organ to which they gain admittance — the stomach, — the liver suffering indirectly, through

the medium of sympathy. Why may not the liver sympathize with the stomach, as well as with the skin? With the skin it does sympathize, as all must acknowledge. No one will pretend to deny that cold produces Hepatitis, but cold acts primarily only on the skin.— Its action cannot reach the liver, or any other deep seated organ, except through the medium of sympathy. But from its proximity to, and more intimate connection with the stomach, the liver must be much more inclined to sympathize with that organ, than with the skin; hence, there can be no difficulty in establishing Hepatitis, as a sympathetic disease, induced by an original impression on the stomach. Another cause of Hepatitis, may be found in the passions and affections of the mind; such as grief, melancholy, and despair, jealousy and revenge are said

to be productive of this, as well as of many other diseases.— These passions appear, also, to injure the liver by means of sympathy with the stomach; for they never seriously affect the former organ, until they have impaired the functions of the latter. "The untimely disappearance of cuticular eruptions, is said to be productive of Hepatitis, a most remarkable instance of which is related by Dr. Armstrong where on the disappearance of Urticaria, the patient was immediately attacked by a violent acute Hepatitis.— Whenever the eruption appeared again all the symptoms of Hepatitis disappeared, but so soon as the eruption was again repelled, they all returned with great violence demonstrating most incontestably that it depended on the repelled eruption.—

Diagnosis

At the very commencement of the disease, the diagnosis of acute-hepatitis from any contiguous part, is not of very material consequence, since the speedy reduction of vascular action, by copious venesection, is the main spring to be acted on, in either case. But in the choice of purgatives, some discrimination is necessary; for, though the modern scholastic physiologist, or routine physician, may laugh at the idea of cholagogues, hydragogues, &c. those who personally examine ~~the~~ the effects of purgative medicines on the fæcal discharges, will entertain no doubt of the power which particular medicines possess of causing the evacuation of particular fluids, apparently from their disposition to act on certain sets of secreting or excreting vessels. On this account, it is very desirable to ascertain inflammation of the liver,

specially of its glandular structure, and distinguish it from that of surrounding organs. Acute Hepatitis, may be confounded with Pneumonia, Gastritis, and spasm of the biliary ducts. From Pneumonia, it may be discriminated, by the pain in the side being less acute, by that in the clavicle being more steady, by the difficulty of respiration being less, by the pain not being increased by a gradual inspiration, as in pulmonic inflammation; by the cough being more dry, and by the functions of the stomach being more deranged. - There is usually, also in inflammation of the abdominal viscera, a muddiness of the eye, and change of colour in the skin, which are not so apparent in inflammations of the thoracic viscera.

From inflammation of the stomach, this disease may, in most instances,

be distinguished by the absence of that gastric irritability and sensibility, which render gastritis so dangerous and distressing a complaint. The febrile symptoms, too, in Hepatitis, have nothing of that low or typhoid type, attending gastric inflammation.

Acute-Hepatitis, may be discerned from spasm of the gall ducts, by there being no nausea, by the pain being, erratic, by the pulse being one hundred and upwards in a minute; and by the patient always preferring to keep the body in a straight, quiescent posture; whereas the greatest ease, when there is spasm on the gall-ducts, is obtained by bending the body forwards. Spasm of the gall ducts, brought on by calculi, will terminate in, or rather occasion inflammation, when the treatment must be the same as in original hepatitis. —

Prognosis.

The favourable signs are, about the third, fifth, or seventh day, a bilious Diarrhoea; universal and free perspiration; copious sediment in the urine; inflammation appearing on an external part; hæmorrhage from the hæmorrhoidal veins; these being followed by an abatement of fever, and of other symptoms.

The unfavourable are, intensity of pain and fever; the pain being confined to a point; continual hiccough; cold extremities, while other parts are extremely hot; obstinate constipation; severe rigors, succeeded by transient flushes, and hectic fever; with the usual symptoms of mortification.

Dissection.

In dissection of those who die of Hepatitis, the liver is often found much enlarged and hard to the touch, its colour is more of a deep

purple than natural, and its membranes are more or less affected by inflammation. —
Dissections likewise show that adhesions to the neighbouring parts often take place; that tubercles, as well as vesicular cysts, (denominated hydatids,) are sometimes found in it; and that large abscesses, containing a considerable quantity of pus, are often found in its substance. Biliary concretions are now and then met with. In a few instances, the livers of those who have died of this disease have been found in a fluid state, resembling a honey comb; but the most common appearance to be observed in those who die of diseased liver is the formation of tubercles in its substance. The liver has not unfrequently been found after death to be indurated, or otherwise injured, without any marked indication of disease during the life of the patient. —

Treatment.

Acute - Hepatitis calls for the antiphlogistic plan of treatment, vigorously pushed, and to a great extent. In all very high degree of excitement in the system at large, or of inflammation of the liver itself, the biliary secretion is suspended, or very much impeded; and even when the function is restored, the fluid secreted is far from being healthy at the beginning. On this account, and to prevent chronic indurations, or the chance of present suppuration, it is always best to endeavour, to reinstate the biliary secretion as soon as possible. This is partly effected by copious general and local bleeding, and by such medicines as at once act on the biliary organs, and on the whole line of the intestines.

General blood letting should be prompt and copious. From sixteen, to twenty ounces of blood have been taken with advantage from the arm,

twice, or even thrice a day." If it were fair to draw a conclusion from the facts which have come within my observation, says Dr. Armstrong, I should say, that it is a pretty general error among the practitioners of this country, to bleed too frequently in the course of inflammatory affections, and yet without sufficient decision. By drawing blood repeatedly, at long intervals, with regard rather to some precise quantity than to any immediate and particular effect, the strength of the patient is too frequently exhausted; while the inflammation still proceeds unimpeded to its fatal termination. Yet the efficacy of venesection does not depend on the quantity of blood drawn, but upon the effect produced." How particularly applicable these remarks are to acute hepatitis, every one, even the most inattentive observer of diseased phenomena must admit.

As in other diseases, however, the quantity of blood drawn must be regulated by the circumstances of the case. To relieve the local pain, and uneasiness cups, and leeches, should also be freely applied to the region of the liver. The next remedy in point of efficacy is purging. Mercurial purges from their specific action on the liver are the proper ones. With these, saline purges may be occasionally alternated; a strong infusion of senna holding glauber or epsom salts in solution, will be found an excellent cathartic. In the mean time, let perfect quietude be enjoined, and all the drinks be bland and diluting; barley water, toast water, flax-seed tea, lemon ade, are suitable; and may be alternated with each other, until the disease is perfectly subdued. Let every-thing heating be carefully avoided. If the pain should still continue, although the fever is reduced, a large blister to

the hypochondriac region will be found an important remedy. I am fully convinced that blisters do good in proportion to their size. With this fact I was first made acquainted from having experienced the most decided benefit from a blister on my own person, which had not been properly secured, and had slipped, so as to vesicate a space three times as large as the original blister. If the case prove tedious, let small but repeated doses of calomel be administered, with a view to salivate gently.

The peculiarity of the hepatic system, causes the inflammatory and other diseases of the biliary organ to assume a character and require a treatment, in some measure specific; for, however rapidly the tone of the whole system may be reduced by large and repeated bleedings, both general and local, yet, till the healthy secretion of bile be restored, there is no safety for the patient

from present danger, or future suffering." ....
"The relief, indeed, experienced in most cases, says Dr. Johnson, from mercury the moment it affects the mouth, is truly surprising. The removal of all uneasy sensations from the side, the clearing up of the skin and countenance, the restoration of the natural evacuations, and, in short, the removal of every complaint but debility, evince the powers of this remedy." Under such treatment duly persisted in, the disease seldom fails to be brought to a favourable termination; particularly if the constitution of the patient be sound. Sometimes however suppuration takes place, in spite of every effort to restrain it, and should the abscess point externally, let it be opened and treated like similar affections seated on other parts of the system. The same treatment is requisite, if the abscess discharge itself by the intestines, or lungs.

As soon as suppuration is known to be commencing, we should omit using calomel with a view to salivate, for we can rarely succeed, the two actions appear to be incompatible with each other, and if by persevering we do at last succeed, the mercurial irritation will only increase the existing one. It is here the Nitric and muriatic acids, display their very best effect, given in small doses gradually mounted up to one or two drachms taken in the twenty-four hours. It is particularly serviceable, in those cases attended with great debility.

This concludes the proper medical treatment of acute-hepatitis, but much may be effected towards convalescence by a proper regulated diet. It should neither be stimulating, nor highly nutritious, until the patient be somewhat advanced in convalescence.....

ought to consist entirely of vegetable substances, or at furthest of milk. Exercise in the open air should be moderate, and only taken in fair, and pleasant weather. Convalescence may be rendered still more perfect by wearing flannel next the skin, which indeed should never be neglected.

And to conclude with the words of the illustrious Dr. Hamilton, "It will always be proper to counsel the valitudinarian to forsake the haunts and habits of fashionable life; to quit the crowded city, allurcing amusements, and various occupations carried on in airless, or even tainted rooms; to shun luxurious tables, indolence, and late hours; to retrace the steps by which he has from simple nature deviated, and court the country, pure air and simple diet."

I must now, close this brief and imperfect essay, rendered too prolix by the little interesting matter it contains, but previously to concluding, I must express my warmest thanks, in return for the instruction, and knowledge I have gained, from an attendance on your highly interesting lectures.— That you may individually long live and contribute, by your useful labours, to uphold the reputation of the first medical school in the new world, is the sincere wish of one, who is now constrained to claim a share of that indulgence, and liberality, by which you have heretofore been characterized.—

Finis.